

March 31, 1993

Brad Bradley, Project Manager  
USEPA-Superfund  
Region 5  
MS HSRL-6J  
77 West Jackson Blvd.  
Chicago, IL 60604-3590

Dear Brad:

We received the attached letter from Alderman Craig Tarpoff in Granite City. After reviewing it and in light of the high levels of lead contamination targeted in the USEPA proposed as well as the concerns that IDPH, IEPA, and USEPA share for the health and safety of the area citizens, we would request that additional real-time monitoring of dust levels be employed during the planned excavation. Real-time dust monitoring utilizing a handheld aerosol monitor (HAM) can be used as an approximation of lead levels in the air if the lead content of the soil is known. The assumption is that lead dust levels will mirror soil lead levels.

The formula used to set an acceptable dust concentration is as follows:

$$ADL = \frac{(EG)}{[Pb-dust] \times SF}$$

where: ADL = the level of total dust in air (mg/m<sup>3</sup>) at which control is required due to assumed lead content

RfD = reference dose or the acceptable level of exposure to lead in mcg/m<sup>3</sup>

[Pb-Dust] = concentration of lead in dust expressed in mcg Pb/mg dust and assumed to be equal to soil lead concentration

SF = safety factor

The reference dose which suggests itself is the NAAQS for lead of 1.5 mcg/m<sup>3</sup>. This is a USEPA standard which is protective of health and is associated with the proper route of exposure. It could be argued that an additional safety factor might be unnecessary since the NAAQS is to protect for chronic exposure and your project is short-term in any one area; however, if you wish to error on the side of caution, a safety factor of 2-3 would not be

unreasonable. As an illustration, we would assume that USEPA is excavating soil with an average concentration of 2000 mg/kg (or 2.0 mcg/mg). The formula would be as follows:


$$\frac{1.5 \text{ mcg/m}^3}{2.0 \text{ mcg/mg} \times 2} = 0.375 \text{ mg/m}^3$$

This suggests that if the measured dust levels exceed 0.375 mg/m<sup>3</sup>, additional control measures should be taken to prevent the spread of contamination and the exposure of any residents or neighbors. Obviously as soil lead levels rise, the acceptable level of airborne dust decreases. Such an approach allows the public (and workers) to be protected and reassured of that protection, USEPA to reliably monitor the work on a real-time basis, and avoids argument over differences of opinion and safety. A number of different HAMs are available commercially, but we assume that USEPA (or their contractors) have them on hand. They can also be leased for short-term use. Alderman Tarpoff has requested that IDPH monitor the excavation, but we would not like to get in the way of your project unless there is no other way to accommodate the request. If you believe it would help expediate things, our director, Dr. Lumpkin, is prepared to make a formal request for this monitoring to Mr. Adamkus.

In summary, we believe the request for real-time dust monitoring during the planned excavation is a reasonable one. An easy method exists to perform such an evaluation. The benefits from real-time monitoring include reassurance and timely evidence that the citizens are protected, enhanced credibility for USEPA by taking these concerns seriously and responding appropriately, and a check to ensure that the assumptions regarding the safety of the remediation are accurate. On behalf of the citizens of Granite City and IDPH, we request the real-time dust monitoring and that the data be made available to Alderman Tarpoff and other local or state officials. We are willing to conduct this monitoring if USEPA is unable, but would request that you inform us of your decision as soon as possible to allow us sufficient time to prepare our equipment if necessary.

Thank you for your attention to this matter. Please feel free to contact me at your earliest convenience if additional information is required or questions remain.

Sincerely,

  
Thomas F. Long  
Senior Toxicologist  
Toxicology Section

cc: Alderman Craig Tarpoff, Granite City  
Congressman Jerry Costello  
Dave Webb, IDPH-Edwardsville  
Beverly Kush, USEPA  
Virginia Wood, IEPA  
Director's Office



# City of Granite City

Granite City, Illinois 62040

Von Dee Cruse  
Mayor

Robert W. Stevens  
City Clerk

Gail Valle  
Treasurer

Mark C. Goldenberg  
City Attorney

Clayton Harrison  
Supt. of Streets

March 26, 1993

Dr. Thomas F. Long  
Senior Toxicologist  
Illinois Department of Public Health  
525 West Jefferson Avenue, 3rd Floor  
Springfield, IL 62761

RE: NL Industries/Taracorp Site; Granite City, IL

Dear Dr. Long:

As you are aware, the U.S. EPA is preparing to remediate the slag and battery case material which was removed from the NL/Taracorp pile over the past several decades. These materials were used for paving alleys, general fill, driveways and parking lots. These locations exist in densely populated areas. Because the dust created by the removal of these materials presents a tremendous hazard, we need to ensure that adequate dust control measures are constantly maintained.

Remedial Project Manager Brad Bradley initially indicated that his visual observations would provide sufficient safety measures. After repeated requests by me to employ hi-vol monitors, Mr. Bradley has agreed to include their use during remediation. However, Mr. Bradley indicated that he would not provide results from the hi-vol samples for review by the City in a timely manner.

In order to ensure the health and safety of the citizens of Granite City, Venice, and Eagle Park Acres, I am requesting that the Illinois Department of Public Health monitor the remediation concurrently with the U.S. EPA. The hand-held total dust detection equipment used by the PRPs during the soil homogenization experiment would determine whether adequate dust control measures are being used during remediation. Because the soil lead levels are up to 50 times higher than those in the homogenization project, it will be necessary to adjust the formula which determines the shut-down point.

Dr. Thomas F. Long  
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If we had greater confidence in the U.S. EPA, I would not be making this request. We would greatly appreciate your participation on our behalf.

Sincerely yours,

  
Craig A. Tarpo, Chairman  
Citizens Advisory Committee

cc: Congressman Jerry Costello  
Mayor Von Dee Cruse  
Brad Bradley, U.S. EPA  
Members of City Council  
Members of Citizens Advisory Committee